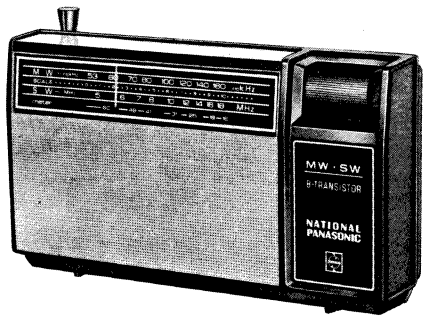
Service Manual

NATIONAL
RADIO
PANASONIC

2-BAND PORTABLE RADIO

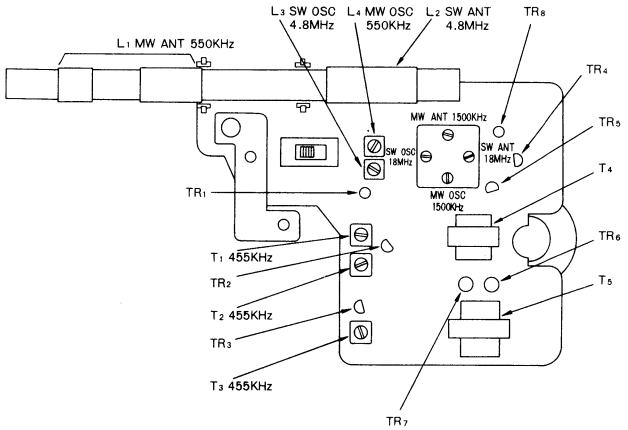
MODEL R-207R



■ SPECIFICATIONS

Frequency Range:	MW 525～1605KHz (561～187 m)
	SW 4.75～18MHz (63.2～16.7 m)
Intermediate Frequency:	455KHz
Sensitivity:	MW 50 μV/m for 50mW output
	SW 30 μV/m for 50mW output
Power Output:	350mW
Batteries:	3V (Two "D" size flashlight batteries) (NATIONAL UM-1 or equivalent)
Speaker:	6.5cm (2½") PM Dynamic Speaker, Imp. 8Ω
Cabinet Dimensions:	187(Wide)×112(High)×49(Deep)mm (7 3/8" × 4 13/32 × 1 15/16")
Weight:	500g(1 1b 1.6oz) without batteries

■ ALIGNMENT POINTS



Notes:

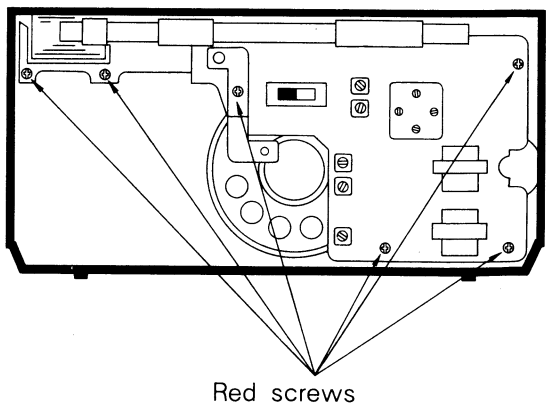
1. Set volume control to maximum.
2. Set band selector switch to MW or SW.
3. Set power source voltage to 3V DC.
4. Output of signal generator should be no higher than necessary to obtain an output reading.

■ TO REMOVE CHASSIS

1. Remove cabinet back cover mounting screw.
2. Remove cabinet back cover.
3. Remove 6 red chassis mounting screws.
4. To reassemble, reverse the above procedure.

■ TO REMOVE SPEAKER

1. Remove chassis.
2. Unsolder lead wires from speaker terminals.
3. Remove speaker mounting screw.

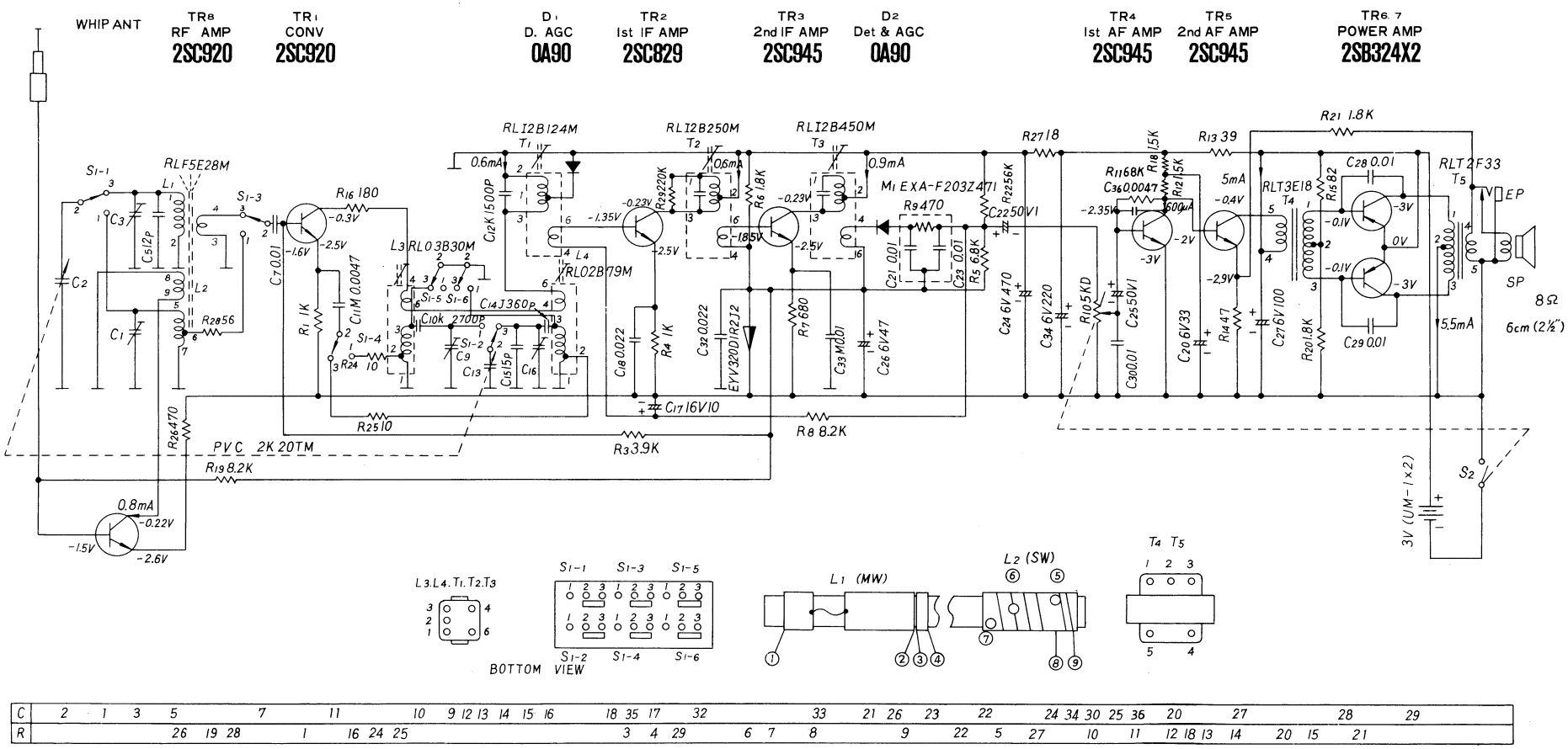


Red screws

ORDER NO. TD-003

MATSUSHITA ELECTRIC

Schematic Diagram- Model R-207R



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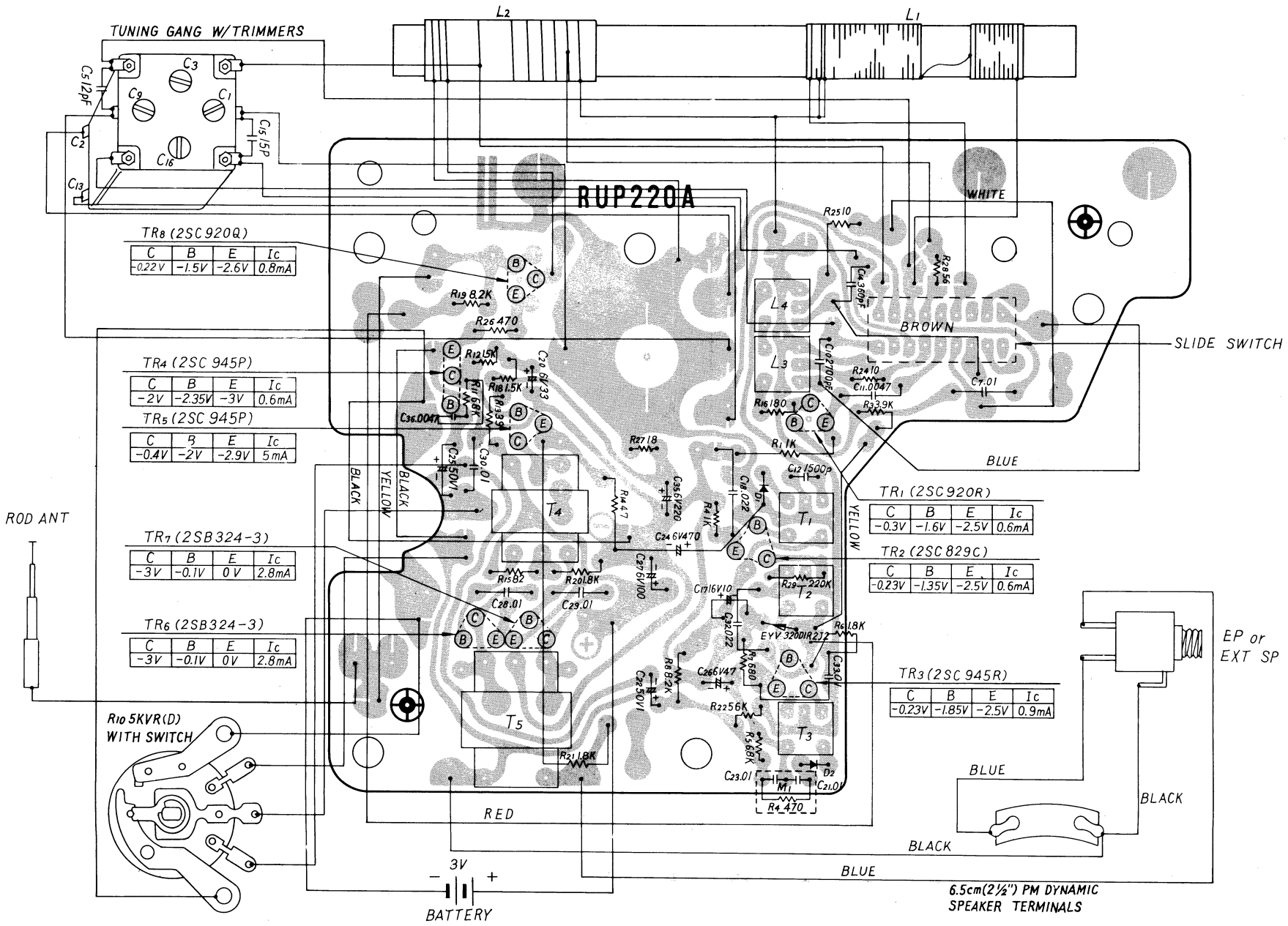
Circuit Board Wiring View–Model R-207R



■ REPLACEMENT PARTS LIST

NOTES: 1. Part numbers are indicated on most mechanical parts.
Please use this part number for parts orders.
2. Ⓝ indicates the new parts.
3. A— C rank: A rank parts will cover 80% of repair needs.
A+ B rank parts will cover 95% of repair needs.
C rank parts are less necessary.

Ref. No.	Parts No.	Description	Per Set	Remarks
TRANSISTORS AND DIODES				
TR1	2SC920	Converter	1	A
TR2	2SC829	1st 1F Amplifier	1	A
TR3	2SC945	2nd 1F Amplifier	1	A
TR4	2SC945	1st AF Amplifier	1	A
TR5	2SC945	2nd AF Amplifier	1	A
TR6, 7	2SB324	Power Amplifier (push-pull)	2	A
TR8	2SC920	RF Amplifier	1	A
D1	0A90	D. AGC	1	A
D2	0A90	Det. & AGC	1	A
D3	EYV320D1R2J2	AOC	1	A
COILS AND TRANSFORMERS				
L1, L2	RLF5E28M	MW & SW Antenna Coil	1	A
L3	RL03B30M	SW Oscillation Coil	1	A
L4	RL02B79M	MW Oscillation Coil	1	A
T1	RLI2B124M	1st IF Transformer	1	A
T2	RLI2B250M	2nd IF Transformer	1	A
T3	RLI2B450M	3rd IF Transformer	1	A
T4	RLT3E18M	IPT	1	A
T5	RLT2F33M	OPT	1	A
COMPONENT COMBINATION				
M1	EXAF203Z471	0.01mfd, 0.01mfd, 470Ω	1	B
SWITCHS				
S1-1~S1-6	RSS-146-1	Band Selector Switch	1	A
SPEAKER				
SP	EAS65P76SK	6.5cm(2½″) PM Dynamic Speaker, 8Ω	1	A
CAPACITORS				
C5	ECCD05120KC	12mmf,50WV,Ceramic	1	C
C15	ECCD05150KC	15mmf,50WV, Ceramic	1	C
C7,28,29,30	ECKE05103P	0.01mfd,50WV, Ceramic	3	C
C33	ECKE05103MY	0.01mfd,50WV,Ceramic	1	C
C32, 18	ECKE05223P	0.022mfd,50WV,Ceramic	3	C
C11	ECKE05472MY	0.0047mfd,50WV,Ceramic	1	C
C36	ECKE05472P	0.0047mfd, 50WV, Ceramic	1	C
C14	ECQS1361JZ	360mmf,100WV,Polyestyrene	1	C
C12	ECQS05152KZ	1500mmf,50WV,Polyestyrene	1	C
C10	ECQS05272KZ	2700mmf,50WV,Polyestyrene	1	B
C17	ECEA16V10	10mfd, 16WV, Electrolytic	1	B
C27	ECEA6V100	100mfd,6.3WV,Electrolytic	1	B
C34	ECEA6V220	220mfd,6.3WV,Electrolytic	1	B
C24	ECEA6V470	470mfd,6.3WV,Electrolytic	2	B
C25, 22	ECEA, 50V1	1mfd, 50WV, Electrolytic	1	B
C20	ECEA6V33	33mfd, 6.3WV, Electrolytic	1	B
C26	ECEA6V47	47mfd, 6.3WV, Electrolytic	1	C
VARIABLE CAPACITORS				
C2, 13, 1, 3, 9, 16	PVC-2K20TM	Tuning Gang W/Trimmers	1	A
CHASSIS				
	RDR-21	Pulley	3	B
	RNW-150-2	Insulation Washer	3	C

Pef. No.	Parts No.	Description	Per Set	Remarks
	RNW-221	Insulation Washer	1	Ⓝ C
	RDS-3090B	Dial Spring	1	B
	RDE-16-2	Pulley Shaft	1	Ⓝ B
	RDZ-05-3	Dial Cord	80cm	A
	RBT-38A	Tuning Knob	1	Ⓝ B
	RBV-8A	Volume Knob	1	Ⓝ B
	RBX-6AS	Fixture	1	Ⓝ B
	RMY-23B	Heat Sink	1	Ⓝ C
	RHG-109	Antenna Gum	2	C
	RDP-64A	Dial Pointer	1	Ⓝ A
CABINET				
	RKA-121A	Cabinet (Complete)	1	Ⓝ A
	RKM-139A	Cabinet, Front	1	Ⓝ A
	RKF-93A	Cabinet, Rear	1	Ⓝ A
	RKD-161A	Dial Scale	1	Ⓝ A
	RDH-40A	Dial Bracket Plate	1	Ⓝ C
	RGM-60A	Metal Net	1	Ⓝ B
	RGX-298A	Panel	1	Ⓝ B
	RGX-299A	Panel	1	Ⓝ B
	XEARDV92HAS	Rod Antenna	1	Ⓝ A
	RJJ-78	Earphone Jack	1	A
	RJC-102A	Battery Terminal, ⊖	2	Ⓝ A
	RJC-103A	Battery Terminal, ⊕	2	Ⓝ A
	RUV-292-2	Cover	1	Ⓝ A
	RHK-2S	Cover Mounting Screw	1	Ⓝ A
	RHP-739	Buffle	1	Ⓝ A
	RHP-905A	Pressboard	1	Ⓝ A
RESISTOR				
R28	ERD-14VK560	56Ω, ¼Watt, Carbon	1	B
R24, 25	ERD-14VK100	10Ω, ¼Watt, Carbon	2	B
R27	ERD-14VK180	18Ω, ¼Watt, Carbon	1	B
R13	ERD-14VK390	39Ω, ¼Watt, Carbon	1	B
R15	ERD-14VK820	82Ω, ¼Watt, Carbon	1	B
R16	ERD-14VK181	180Ω, ¼Watt, Carbon	1	B
R26	ERD-14VK471	470Ω, ¼Watt, Carbon	1	B
R7	ERD-14VK681	680Ω, ¼Watt, Carbon	1	B
R1, 4	ERD-14VK102	1KΩ, ¼Watt, Carbon	2	B
R12, 18	ERD-14VK152	1.5KΩ, ¼Watt, Carbon	2	B
R6, 21	ERD-14VK182	1.8KΩ, ¼Watt, Carbon	2	B
R3	ERD-14VK392	3.9KΩ, ¼Watt, Carbon	1	B
R5	ERD-14VK682	6.8KΩ, ¼Watt, Carbon	1	B
R8, 19	ERD-14VK822	8.2KΩ, ¼Watt, Carbon	2	B
R22	ERD-14VK563	56KΩ, ¼Watt, Carbon	1	B
R11	ERD-14VK683	68KΩ, ¼Watt, Carbon	1	B
R14	ERD-14VK470	47Ω, ¼Watt, Carbon	1	B
VARIABLE RESISTOR				
R10	EVJ-D0BT12D53	5KΩ(D),Volume Control W/ON-OFF Switch	1	A
ACCESSORIES				
	PS-5A	Magnetic Earphone, 8Ω	1	A
	RQK-32A	Leather Case	1	B
PACKING				
	RQX-016(T)	Instruction Book	1	B
	RPF-1A	Polyethlene Cover	1	C
	RPN-508(T)	Pad	1	C
	RPK-014(T)	Decoration Box	1	C